

Notice of Allowability

Application No.

10/694,043

Examiner

Callie E. Shosho

Applicant(s)

HASEGAWA ET AL.

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 2/9/06.
2. ☒ The allowed claim(s) is/are 1-4 and 6-15.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Statement of Reasons for Allowance

1. The present claims are allowable over the “closest” prior art JP 2001-348523, Hirasa et al. (U.S. 2003/0166742), Uemura et al. (U.S. 5,928,419), and Hakiri et al. (U.S. 6,786,959) for the following reasons:

JP 2001-348523 discloses ink jet ink comprising water, pigment, dispersant, and resin emulsion. It is disclosed that the pigment has average particle diameter less than or equal to 18 nm and that the ratio of the standard deviation to the aggregate diameter is less than or equal to 0.4. However, while JP 2001-348523 discloses the use of resin emulsion, there is no disclosure or suggestion of silicone oil emulsion and thus, no disclosure or suggestion of silicone oil emulsion having average particle diameter greater than the average particle diameter of the particulate pigment as now required in all the present claims.

Hirasa et al. disclose ink jet ink comprising water, dispersant, urethane emulsion, and particulate pigment. It is disclosed that the pigment has average particle size of 10-300 nm and that the standard deviation of the particle size distribution of the pigment is 10-50 nm. However, there is no disclosure or suggestion of silicone oil emulsion and thus, no disclosure or suggestion of silicone oil emulsion having average particle diameter greater than the average particle diameter of the particulate pigment as now required in all the present claims.

Uemura et al. disclose ink jet ink comprising water, polyurethane emulsion, pigment, and dispersant. It is disclosed that the pigment possesses average particle diameter of 10-100 nm. However, there is no disclosure of the standard deviation of the particle distribution of the pigment. Further, there is no disclosure or suggestion of silicone oil emulsion and thus, no

disclosure or suggestion of silicone oil emulsion having average particle diameter greater than the average particle diameter of the particulate pigment as now required in all the present claims.

Hakiri et al. disclose ink jet ink comprising water, pigment, and dispersant. It is disclosed that the pigment has average particle diameter of not greater than 50 nm and standard deviation of the pigment particle diameter distribution less than the average particle diameter. However, there is no disclosure or suggestion of silicone oil emulsion and thus, no disclosure or suggestion of silicone oil emulsion having average particle diameter greater than the average particle diameter of the particulate pigment as now required in all the present claims.

Thus, it is clear that JP 2001-348523, Hirasa et al., Uemura et al., and Hakiri et al., either alone or in combination, do not disclose or suggest the present invention.

It is noted that Table 1 of the present specification sets forth comparative data. The data compares ink within the scope of the present claims, i.e. comprising silicone oil emulsion (examples 4-6), with ink outside the scope of the present claims, i.e. comprising no silicone oil emulsion (comparative example 1). It is shown that ink of the present invention is superior in terms of average particle diameter of the pigment, gloss, discharging property and preservability.

Further, applicants' amendment and Replacement Drawing Sheet filed 2/9/06 overcomes the drawing objections of record and 35 USC 112 second paragraph rejection of record.

In light of the above, it is clear that the rejections of record are untenable and so, the present claims are passed to issue.

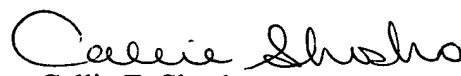
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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Callie E. Shosho
Primary Examiner
Art Unit 1714